



**Tanja Kortemme**  
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**Host: David Giedroc**



*Computational Design of Modified and New Protein Functions  
- Sensors for New Signals and Controllable Machines*

There has been exciting progress in the computational design of proteins with new structures and functions, highlighting the potential to advance many applications in biotechnology and medicine, as well as to provide insights into the design principles of protein function. Many significant challenges remain, both in the accuracy of current computational approaches, and in the complexity of functions that can be designed at present. I will discuss our recent progress with computational methods and describe new approaches and their application to engineer sensor/actuators that detect and respond to molecules in living cells, and to control the conformational cycle of large protein machines with light.

**For further details, contact Mr. Steven Watkins at 5-9749**

**QCB**

**Seminar Series**

**Co-hosted by the Department  
of Chemistry and the Graduate  
Program in Biochemistry**

**FRIDAY  
November 13**

**CHEMISTRY  
C033**

**2:30 p.m.**